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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,607	03/30/2004	Michael Roeder	200313511-1	3195

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EXAMINER	
WRIGHT, BRYAN F	

ART UNIT	PAPER NUMBER
2431	

NOTIFICATION DATE	DELIVERY MODE
06/01/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/812,607	ROEDER ET AL.	
	Examiner	Art Unit	
	BRYAN WRIGHT	2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,10-30,32 and 35-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 10-16, 25-30, 32, 35-40, and 49--58* is/are rejected.

7)☒ Claim(s) *17-24 and 41-48* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In view of the Appeal Brief filed on 2/16/2010, PROSECUTION IS HEREBY REOPENED. A new ground of rejection cited under prior art reference Winget is set forth below. To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37.

The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below. Claims 1-6, 10-30, 32, and 35-58 are pending.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claim 50 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Examiner contends applicant's apparatus comprises a machine readable medium. The Examiner contends that the broadest

reasonable interpretation of the term medium includes transitory signals. The office considers signals to be non-statutory subject matter. As such the Examiner advises the applicant to include in the claim or specification subject matter reciting that the medium is not intended to include transitory signals

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 10, 12, 25-30, 32, 36, and 49-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Winget (US Patent Publication No. 2005/0086481).

3. As to claim 1, Winget teaches a method of secure information distribution between nodes, the method comprising: providing, by a first node, a component value A1 (e.g., parallel.BSSID [par. 41]);

providing, by an adjacent node, a component value B 1 as a challenge (e.g., nonce) to the first node (i.e., ...teaches once the group key name is embedded into the packet name extension, the data packets may then be transmitted by the AP 135 to the

wireless clients [par. 44] ...further teaches establishing a group key name which contains a nonce (e.g., challenge) [par. 41]);

performing, by the first node, a handshake process (i.e., key name) with the adjacent node to determine membership (e.g., distinguish if recipient is the intended address) in a secure group (i.e., ... teaches the unique key name enables the wireless clients 110, 115, 120, 125 the ability to distinguish if the recipient is an intended addressee of the multicast transmission [par. 44] ...further teaches unique group key name that may be incorporated into a multicast transmission in order to enable a client to determine if it is a member of a targeted transmission group [par. 46]);

wherein the handshake process comprises requiring each of the first node and the adjacent node to calculate identical values by applying the component values A1 and B1, and a key value associated with the secure group, to a one way function f(x) (i.e., ...teaches a secure hash including a nonce (e.g., challenge/value B1), id (e.g., value A1) and a group key [par. 41]);

and distributing secure information from the first node to the adjacent node, if the adjacent node is proven to be a member of the secure group (i.e., ...teaches if a key name in the data table matches the received group key name, the message is deemed correctly delivered thereby prompting decryption of the entire message packet [par. 49]).

4. As to claim 2, Winget teaches a method further comprising: prior to providing the secure information to the adjacent node, performing the handshake process with

another adjacent node (i.e., ...teaches In order to determine if the wireless clients 110, 115, 120, 125 is a member of the intended targeted group for the multicast transmission, the wireless client 110, 115, 120, 125 compares the validated group key name to elements contained within a local data table [par. 48]).

5. As to claim 3, Winget teaches a method further comprising: establishing an encryption key with the adjacent node (i.e., ...teaches trust relationships (e.g., relationship between communicating entities) and the generation of keys may be established utilizing any known encryption scheme [par. 34]).

6. As to claim 4, Winget teaches a method where the encryption key comprises a public key (i.e., ..teaches generation of keys may be established utilizing any known encryption scheme (e.g., public key) [par. 34]).

7. As to claim 5, Winget teaches a method where the encryption key comprises a symmetric key (i.e., ..teaches generation of keys may be established utilizing any known encryption scheme (e.g., symmetric key) [par. 34]) .

8. As to claim 6, Winget teaches a method where the secure information is distributed along with an encryption key (i.e., ..teaches data packet is transmitted together with the group key name, the group key and the multicast message [abstract]).

9. 7. (Canceled) 8. (Canceled) 9. (Canceled)

10. As to claim 10, Winget teaches a method where the one way function f(x) is a secure hash function [par. 41].

11. As to claim 12, Winget teaches a method where the secure information comprises a key for secure communication [abstract].

12. As to claim 25, Winget teaches a apparatus for secure information distribution between nodes, the apparatus comprising:

a node configured to performing a handshake process (i.e., group key name) with an adjacent node to determine membership in a secure group (i.e., ... teaches the unique key name enables the wireless clients 110, 115, 120, 125 the ability to distinguish if the recipient is an intended addressee of the multicast transmission [par. 44]), and distribute secure information to the adjacent node if the adjacent node is proven to be a member of the secure group (i.e., ...teaches unique group key name that may be incorporated into a multicast transmission in order to enable a client to determine if it is a member of a targeted transmission group [par. 46] ...further teaches if a key name in the data table matches the received group key name, the message is deemed correctly delivered thereby prompting decryption of the entire message packet [par. 49]));

wherein the handshake process comprises requiring each of the node and the adjacent node to calculate identical values by applying a component value A1 provided by the node, a component value B1 provided by the adjacent node, and the a key value associated with the secure group, to a one way function f(x) (i.e., ...teaches a secure hash including a nonce (e.g., challenge/value B1), id (e.g., value A1) and a group key [par. 41]).

13. As to claim 26, Winget teaches a apparatus where the node performs the handshake process with another adjacent node, prior to providing the secure information to the adjacent node (i.e., ...teaches In order to determine if the wireless clients 110, 115, 120, 125 is a member of the intended targeted group for the multicast transmission, the wireless client 110, 115, 120, 125 compares the validated group key name to elements contained within a local data table [par. 48]).

14. As to claim 27, Winget teaches a apparatus where the node is configured to establish an encryption key with the adjacent node (i.e., ...teaches trust relationships (e.g., relationship between communicating entities) and the generation of keys may be established utilizing any known encryption scheme [par. 34]).

15. As to claim 28, Winget teaches a apparatus where the encryption key comprises a public key (i.e., ..teaches generation of keys may be established utilizing any known encryption scheme (e.g., public key) [par. 34]).

16. As to claim 29, Winget teaches a apparatus where the encryption key comprises a symmetric key (i.e., ..teaches generation of keys may be established utilizing any known encryption scheme (e.g., symmetric key) [par. 34]).

17. As to claim 30, Winget teaches a apparatus where the secure information is distributed along with an encryption key (i.e., ..teaches data packet is transmitted together with the group key name, the group key and the multicast message [abstract]).

18. 31. (Canceled)

19. As to claim 32, Winget teaches a apparatus where the one way function f(x) is a secure hash function [par. 41].

20. 33. (Canceled)

21. 34. (Canceled)

22. As to claim 36, Winget teaches a apparatus where the secure information comprises a key for secure communication [abstract].

23. As to claims 49 and 50, Winget teaches a apparatus for secure information distribution between nodes, the apparatus comprising: means for performing a

handshake process (i.e., group key name) between a first node and an adjacent node to determine membership in a secure group (i.e., ... teaches the unique key name enables the wireless clients 110, 115, 120, 125 the ability to distinguish if the recipient is an intended addressee of the multicast transmission [par. 44] ...further teaches unique group key name that may be incorporated into a multicast transmission in order to enable a client to determine if it is a member of a targeted transmission group [par. 46]);

wherein the handshake process comprises requiring each of the first node and the adjacent node to prove a key value that is associated with the secure group (e.g., parallel.BSSID and nonce [par. 41]); wherein each of the first node and the adjacent node has an identifier value that is associated with the secure group in order for the first node and the adjacent node to calculate identical values by applying a component value A1 provided by the first node, a component value B 1 provided by the adjacent node, and the a key value associated with the secure group, to a one way function f(x) (i.e., ...teaches a secure hash including a nonce (e.g., challenge/value B1), id (e.g., value A1) and a group key [par. 41] ...further teaches a match (e.g., calculation) of the received data [par. 49]);

means for distributing secure information from the first node to the adjacent node, if the adjacent node is proven to be a member of the secure group. (i.e., ...teaches if a key name in the data table matches the received group key name, the message is deemed correctly delivered thereby prompting decryption of the entire message packet [par. 49]).

24. As to claims 51, 53, 55 and 57, Winget teaches a method where the handshake process further comprises: transmitting the calculated value (i.e., group key value) between the first node and the adjacent node (i.e., ..teaches data packet is transmitted together with the group key name, the group key and the multicast message [abstract]).

25. As to claims 52, 54, 56 and 58, Winget teaches a method where the first node belongs to the secure group if the first node contains the identifier value (e.g., group key name) and proves the key value during the handshake process (i.e., ... teaches the unique key name enables the wireless clients 110, 115, 120, 125 the ability to distinguish if the recipient is an intended addressee of the multicast transmission [par. 44] ...further teaches unique group key name that may be incorporated into a multicast transmission in order to enable a client to determine if it is a member of a targeted transmission group [par. 46]),

wherein the adjacent node belongs to the secure group if the adjacent node contains the identifier value and proves the key value during the handshake process, and wherein the secure information is distributed only between nodes in the secure group (i.e., ...teaches if a key name in the data table matches the received group key name, the message is deemed correctly delivered thereby prompting decryption of the entire message packet [par. 49]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

26. Claims 11, 13, 16, 35, 37 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winget in view of Traversat et al. (US Patent Publication No. 2002/0152299 and Traversat hereinafter).

27. As to claims 11 and 35, Winget teaches an authentication process comprising secure data communication between communicating entities [par. 41-46], however Winget fails to teach a method where the secure information comprises a password. The Examiner contends the teachings of Traversat disclosed the use of a password as

part of a handshake between communicating entities at the time of applicant's original filing. Traversat discloses a peer group using an outside challenge (e.g. a secret group password) as part of an authentication process [par. 472]. Therefore given Winget's ability to provide an authentication process between communicating client device groups, a person of ordinary skill in the art would recognize the advantage of modifying Winget to enhance the authentication process with the feature of a password challenge as disclosed by Traversat.

28. As to claims 13 and 37, Winget teaches an authentication process comprising secure data communication between communicating entities [par. 41-46], however Winget fails to teach a method distributing secure information to each adjacent node that is a member of the secure group, in response to an update of the secure information. The Examiner contends the teachings of Traversat disclosed at the time of applicant's original filing, sending (e.g., distributing) information once an update of group membership (e.g., join) had occurred [par. 394]. Therefore given Winget's capability to provide secure communication between gourps of client devices, a person of ordinary skill in the art would recognize the advantage of modifying Winget to enhance client group communication with the feature of sending update information based on a state change (e.g., member join) as disclosed by Traversat.

29. As to claim 16 and 40, Winget teaches an authentication process comprising secure data communication between communicating entities [par. 41-46], however

Winget fails to teach a method of determining an age of the secure information so that each node in the secure group will store a latest version of the secure information. The Examiner contends at the time of applicant original filing, Traversat discloses performing a query (e.g., determining) relating to the need to update pertinent information (e.g., associated with the communicating entities (e.g., secure group) [par 152]. Therefore given Winget's capability to provide secure communication between groups of client devices, a person of ordinary skill in the art would recognize the advantage of modifying Winget to enhance client group communication with the feature of ensuring the most up to date information is available at each client device group as disclosed by Traversat.

30. Claims 14, 15, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winget in view of Traversat and further in view of Mowers et al. (US Patent No. 7,644,275 and Mowers hereinafter).

31. As to claims 14, 15, 38 and 39, the system of Winget and Traversat teaches a handshake process between communicating entities, however the combination of Winget and Traversat does not teach performing the handshake process comprises performing the handshake process with the adjacent node once for every fixed time amount T. The Examiner contends at the time of applicant's original filing Mowers disclosed requiring a handshake to be performed based on a time requirement [col. 13, lines 30-45]. Therefore given Winget and Traversat ability to provide handshake capability between communicating entities, a person of ordinary skill in the art would

recognize the advantage of modifying the system of Winget and Traversat to enhance the handshake process with the feature of requiring a specific time for the handshake to occur as disclosed by Mowers.

Allowable Subject Matter

32. Claims 17-24 and 41-48 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Appellant's arguments filed 2/16/2010, with respect to the rejection(s) of claim(s) 1-6, 10-30, 32, and 35-58 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is disclosed above.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN WRIGHT whose telephone number is (571)270-3826. The examiner can normally be reached on 8:30 am - 5:30 pm Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRYAN WRIGHT/
Examiner, Art Unit 2431

/William R. Korzuch/
Supervisory Patent Examiner, Art Unit 2431